# Nature and Experiential Tourism Report And Recommendations for Charles County, MD



### Prepared by

Fermata, Inc. Austin, Texas

October 20, 2000

## Tabl e of Contents | Tabl es

TABLE OF CONTENTS	1
LIST OF TABLES	1
EXECUTIVE SUMMARY	3
NATURE TRAVEL AND TOURISM	7
The Case for Investing in Nature Tourism	7
MARKETING CONSIDERATIONS	15
Travel Habits of Birders	15
Travel Packaging	16
Predicted Trends	16
RECOMMENDATIONS	17
Introduction	17
The Visitor's Experience	18
Utilize Charles County's Varied Ecosystems	19
Unifying Theme	30
Nature Tourism Anchor	31
Interpreted Driving Tour	31
Special Events	32
Eagle Cam	33
Tourism Infrastructure	33
Potential Funding Sources	34
IMPLEMENTATION	36
Habitat Protection	36
Short-Term Site Improvement	36
Long-Term Site Creation and Improvement	36
Interpretation	36
APPENDIX	37
CITATIONS	52

Table 1: Preferred activities among U.S. travelers between 1995-96	7
Table 2: Number of Americans who participated in outdoor recreation activities in 1982 and 1994 and percent change.	8
Table 3: The annual gross economic value of trips to New Jersey's Delaware Bayshore Per Visitor	12
Table 4: Interests other than wildlife-watching of birders	13
Table 5. Composition of traveling birding groups studied by Fermata Inc.	15
Table 6: How birders learned about tour destinations (respondents could select more than one category)	15
Table 7: Methods of travel	16
Table 8: Sites considered by Fermata, March 2000	18

## **Executive Summary**

Charles County has significant natural resources, and consequently is in the enviable position of having considerable power over its destiny. Unlike regions that have few natural resources to draw upon and that must have their landscapes and community composition dictated by traditional industrial development and incursions by residential subdivisions, Charles County need not let outside forces define its character or its quality of life.

Charles County benefits from a distinctive conjunction of political, geographical, and natural forces. Charles County hosts one of the densest populations of nesting Bald Eagles in the lower 48 states. In our work throughout the U.S. we have experienced no place, other than Alaska and tidewater Virginia, where Bald Eagles are as ubiquitous as Charles County. In other words, Charles County is blessed with the natural resources necessary to support a nature-tourism strategy.

Equally importantly, Charles County is geographically located less than an hour south of Washington D.C., the nation's capital. Visitors to our nation's capital only need travel a short distance south to experience, in its natural habitat, our nation's symbol. Therefore, in addition to a natural resource to serve as the foundation for nature tourism, Charles County has a recognizable market as well as a distinctive selling proposition that will serve as a brand for nature tourism in the region.

Let's simplify the equation. Charles County hosts a Bald Eagle population of world-class consequence. The Bald Eagle is our nation's symbol, and the one bird (or wildlife of any type or classification) recognized by most residents of our country and many from around the world. Our nation's capital, Washington D.C., is located within an hour's drive of Charles County, and is visited by millions of travelers each year seeking a connection with our nation's heritage. Simply put, Charles County is positioned to offer these millions of visitors an opportunity to experience the natural (contrasting with human) history that shaped and fashioned the founding of our nation.

Surrounding regions are not standing idly by to wait and see whether or not Charles County seizes this initiative. Virginia received a \$400,000 grant in late July 2000 to proceed with its development and implementation of a statewide birding trail. Virginia has also been at the forefront of outdoor tourism in its aggressive promotion—and phenomenal success — with a diversity of nature tourism venues such as the Virginia Creeper mountain biking trail. If Charles County truly sees itself as a region with important natural resources, and if it believes as a community that it has something special to offer nature tourists, it can become a player in the tourism industry, which is estimated to be worth \$4.2 trillion per year worldwide. Half-hearted, piecemeal, unplanned, or insincere attempts to get in on this burgeoning industry will result in failure: nearby venues are committing resources and community energy into promoting first-rate nature tourism experiences. In order to successfully compete with these venues, Charles County will have to produce nature tourism experiences of a similar caliber.

The development of nature tourism in Charles County is not a local proposition in scope, scale, or significance. It is global. Visitors from all over the world converge on nearby Washington, D.C., and it is a short stretch in both distance and imagination to promote Charles County resources to a wider, international, sophisticated, affluent audience. In order to attract these visitors, however, Charles County will have to make a substantial commitment to marketing its resources. Preservation of its natural heritage is only the first step in converting those assets to sources of local revenue. These marketing efforts must distill exactly what is unique and appealing about the area, and present this image in a number of different media. Nature tourists want to know what they're observing, and they demand information about peak seasons, local specialties, and above all clearly marked signs that will permit safe and convenient ingress and egress. The avalanche of tourists who research and book exclusively on their computers demands that Charles County provide a stimulating, content-rich electronic marketing format for its destinations in order to further distinguish itself from competing venues.

The Charles County Economic
Development Commission website on
quality of life highlights its commitment to "building a thriving business
environment while retaining the beauty
and quality of life that makes this coun-

ty an inviting place to live and grow." It points out that much of Charles County is still forested. Wildlife sanctuaries in the southern corner of the county harbor Great Blue Herons, beavers, and majestic Bald Eagles. Almost two hundred miles of scenic shoreline make Charles County a paradise for fishermen and boaters. Yet, in the course of this study we found time and again that Charles County and the Department of Natural Resources do relatively little, and oftentimes nothing at all, to promote their significant natural heritage. In fairness to the agencies involved, we believe this to be a crime of omission, rather than commission. One of the biggest challenges that a coherent nature tourism program will face is getting the word out and consciously developing an image or brand. Fermata believes that such an image is possible (given the Bald Eagle), and this report presents specific recommendations for achieving this key goal.

Local residents know that there is more to Charles County than U.S. 301, and they have historically taken advantage of the natural resources touted above. The forests and sanctuaries of this county can indeed support a thriving nature tourism industry. Economically, this is a smart move and a necessary one. Heritage travel and nature travel are growing rapidly. Heritage travelers-including birders-stay longer and spend more per day than traditional travelers. According to some estimates, they stay nearly twice as long as the traditional leisure traveler. Why should Charles County bypass this significant opportunity to garner revenue for its

local communities at minimal cost in ways that involve raising the quality of life for all county residents?

Attracting heritage and nature travelers does not require the vast capital investments needed for industrial parks, shopping malls, casinos, and amusement parks. Yet, in a sense, it requires something even harder to come by than money: it requires a commitment to protecting and enhancing the habitats that support wildlife viewing. This doesn't demand much in the way of a financial outlay, but it requires a tremendous outlay in terms of community consensus to preserve resources through a planned nature tourism approach. In addition, to nurture and facilitate the growth of nature tourism require a commitment to a coherent marketing strategy. If the will exists, the results are virtually foreordained.

For a successful nature tourism plan, Charles County must have:

- A community-wide commitment to preserve and expand its natural resources
- A central interpretive site, utilizing the Bald Eagle as a metaphor for nature
  - Friendship Park
- A plan to maximize the nature-viewing potential of county, state, and federally owned properties in the county, and to improve the relationship between county, state, and federal parks, recreation, and wildlife agencies
  - Chapman's Landing/Mt. Aventine

- 13-mile Railroad Bed/Mattawoman Natural Environment Area
- · Maxwell Hall
- Mallows Bay/Douglas Point
- A plan for creating an attractive, recognizable map and signage system for visitors
- Site-specific interpretation facilities at resource centers
- A marketing plan advantaging the resources listed above
- Minor structural improvements at several sites to enhance wildlife viewing opportunities
- A thorough regional understanding of the benefits that come with planned nature tourism.

Every element that supports nature tourism adds to the quality of life for residents of Charles County. Nature tourists do not require new utility districts, hospitals, or schools. They require undeveloped spaces. The quantity and quality of open space that support nature tourism also attract companies seeking to relocate in an area that their employees will want to live. Charles County has the everyday amenities needed for its citizens along U.S. 301—good schools, services, and parks for recreational activities. By committing to nature tourism, Charles County can provide citizens a fun and educational activity in their own backyard, bring in tourist revenue for local businesses, encourage local residents to begin new enterprises that cater to the tourist trade, and become a more attractive site for corporate relocation. Providing hiking/biking trails, access to local waterways, opportunities for wildlife viewing, and preserving important environmental features will play a vital role in making Charles County an even better place to live.

#### To summarize:

- Establish an interpretive center, adopting the Bald Eagle as a metaphor (and brand) for the Charles County region at Friendship Park.
- Enhance additional resource centers, such as Chapman's Landing, Maxwell Hall, Mattawoman
   Natural Environment Area, and Mallows Bay for nature tourism and interpretation
- Market Charles County as the natural history counterpart to Washington D.C., a destination only 25 miles south of the District where the dynamic natural history

• Adopt the most advanced technology in marketing and interpreting Charles County. For example, install an Internet camera (the Eagle Cam) to broadcast the activities at an actual eagle nest to the world-at-large.

(such as the Bald Eagle popula-

of the capital city.

tion) is as noteworthy as the static museums and federal monuments

• Develop visitation materials, such as signed destinations with an accompanying natural history map and guide, that will facilitate visitation to Charles County.



### Nature Travel and Tourism

### The Case for Investing in Nature Tourism

High Growth in a Lucrative Industry

Global tourism and travel is a multitrillion dollar business. Total travel expenditures by Americans in 1994 were \$340 billion, making travel and tourism the nation's third-largest retail industry and second-largest employer (Herreld 1996). According to the World Travel and Tourism Council (WTTC), in 1999, North American tourism generated over one trillion dollars, and sustained seventeen million jobs (WTTC 1999). Personal travel and tourism constituted the largest segment of the market, representing \$739 billion, an almost four percent increase over 1998. That amount is projected to increase more than two percent by the year 2010.

Table 1: Preferred activities among U.S. travelers between 1995-96

Activity Percent of tr	avelers participating
Shopping	32%
Outdoor	17%
Historical/Museum	14%
National/State Park	10%
Beach	11%
Cultural Events/Festivals	9%
Theme/Amusement Park	8%
Nightlife/Dancing	8%
Gambling	7%
Sporting Event	6%
Golfing/Tennis/Skiing	4%
(Newsweek, 1998)	

Nature travel is estimated to be increasing at an annual rate between ten and thirty percent (Reingold 1993) Filion et al. (1992) estimated that between forty and sixty percent of international

visitors travel to enjoy and appreciate nature.

#### Large National Market

According to the U.S. Department of Agriculture, almost 150 million people participate in adventure travel activities such as mountaineering, scuba diving, biking, cross-country skiing, hiking, wildlife viewing, and camping. Nature travel is now a significant part of the global leisure travel industry. According to the Adventure Travel Society, financial growth in adventure travel is expected to remain strong, with a projected four to six percent increase annually. Evidence of these trends was also presented in the July 27, 1998 issue of Newsweek magazine. The editors presented a list of activities preferred among U.S. travelers between 1995-1996, showing that a significant percentage are engaged in activities characterized as "experiential" such as outdoor recreation, visits to historical sites and museums, trips to national and state parks, and attending cultural events and festivals (Table 1). By comparison, only eight percent—less than half were interested in theme or amusement parks.

More specifically, wildlife-associated recreation, as opposed to outdoor recreation in general, now involves millions of Americans in hunting, fishing, and a variety of non-consumptive activities such as birding, bird feeding, and wildlife photography. According to the U.S. Fish and Wildlife Service, during 1996, 77 million U.S. residents 16 years of age or older participated in some form of wildlife-associated recreation activity. During that year

- 62.9 million people enjoyed primary wildlife watching activities such as observing, feeding, or photographing wildlife
- 35.2 million people in the United States fished
- 14 million people hunted

However, as noted in the survey, there is considerable overlap between those who hunt and fish, and those who watch wildlife. For example, in 1996, almost seventy percent of hunters also fished, and about twenty-five percent of anglers also hunted. More interestingly, large majorities of anglers and hunters also participated in wildlife-watching activities, whereas a minority of wildlife watchers also hunted and/or

fished. Rather than representing discrete constituencies, wildlife recreationists are an amorphous group of enthusiasts engaged in a variety of wildlife-associated activities. On the whole, expenditures related to wildlife-associated recreation in the U.S. in 1996 totaled \$101 billion (USFWS 1997).

The National Survey on Recreation and the Environment identified outdoor recreation trends over a thirty year period. Data from the 1994-1995 surveys, focusing on sixty-two outdoor activities, were analyzed according to age, income level, and gender of participants. The popularity of activities such as tennis decreased, and other activities such as birding, hiking, and backpacking grew rapidly (Table 2).

Table 2: Number of Americans who participated in outdoor recreation activities in 1982 and 1994 and percent change.

Percentages and millions of Americans who participated in outdoor recreation activities in 1982 and 1984 and percent change.

Activity	Number in 1982-1983 (millions)	Number in 1994-1995 (millions)	Percent Change (%)
Birding	21.2	54.1	155.2
Hiking	24.7	47.8	93.5
Camping (Primitive)	17.7	28.0	58.2
Attend Outdoor Concert/ Pla	ay 44.2	68.4	54.7
Off-Road Driving	19.4	27.9	43.8
Walking	93.6	133.7	42.8
Motorboating	33.6	47.0	39.9
Sightseeing	81.3	113.4	39.5
Camping (Developed)	30.0	41.5	38.3
Swimming/Natural Waters	56.5	78.1	38.2
Golf	23.0	29.7	29.1
Camping (Overall)	42.4	52.8	24.5
Boating	49.5	58.1	17.4
Swimming/Pool	76.0	88.5	16.4
Picnicking	84.8	98.3	15.9
Running/Jogging	45.9	52.5	14.4
Water Skiing	15.9	17.9	12.6
Horseback Riding	15.9	14.3	10.1
Bicycling	56.5	57.4	1.6
Fishing	60.1	57.8	-3.8
Sailing	10.6	9.6	- 9.4
Hunting	21.2	18.6	-12.3
Tennis	30.0	21.2	-29.3
(NSRE 1996, abridged)			

For the last six years, the Recreation Roundtable, a consortium of companies directly involved in outdoor recreation, in cooperation with key federal agencies, has sponsored an opinion survey of U.S. residents' outdoor recreational activities and experiences. Roper Starch, a world-renowned public opinion research firm, conducts this survey of Americans aged 18 years and older. In their most recent report, entitled Outdoor Recreation in the United States 1999: The Family and the Environment, Roper Starch reported that 67% of Americans age 18 years or older participate in outdoor recreation at least monthly, enjoying activities that involve the use and enjoyment of natural resources. This is the highest percentage recorded during the six-year history of the survey, and is a ten percent increase over the previous year. For the first time, the 1999 report found a decline in the number of people who participate less than once per year. That number had remained constant since 1994 at approximately thirty percent, whereas in 1999 it declined to twenty percent. Roper Starch notes that these changes may simply reflect the timing of the survey, as it is conducted at the end of the summer rather than the end of the year (Recreation Roundtable 1999).

In the synopsis that introduces its report, Roper Starch listed a series of findings that are particularly germane to our report. Therefore the following four summaries are directly quoted from Roper Starch (Recreation Roundtable 1999):

- While environmental concern across the nation peaked a decade ago, it is still "top of mind" when considering national problems. Perhaps most importantly, many of the specific environmental problems viewed as most serious affect recreation.
- Many Americans see recreation as one of the main reasons to protect the environment. Indeed, a sizable number say the key driver for environmental protection is to preserve recreation areas and national parks.
- · While Americans are concerned about the environment, they do not think the answer to environmental protection is forbidding the use of public lands. In fact, nearly two in three Americans say outdoor recreation, overall, has a good effect on the environment. More than three quarters of the public say outdoor activities have either a good effect or no effect. Americans who consider outdoor activity a detriment to the environment may avoid it or discourage others from doing it. This suggests a need for the recreation industry to communicate with the public about the actual effects of outdoor recreation on the environment.
- Many Americans think the key to environmentally safe recreation is responsible behavior. In addition, nearly nine in ten say outdoor recreation benefits the environment because it gives people a reason to care about environmental protection. The same number says that if people would follow the rules in parks and recreation areas, there would be no significant effects of their land use on the environment.

Most Americans believe that outdoor recreation benefits the environment, particularly when this recreation is conducted responsibly. Almost ninety percent of all Americans believe that outdoor recreation can promote environmental responsibility, and eighty-six percent are "very concerned that people who engage in outdoor recreation hurt the environment by leaving trash and damaging the landscape." In other words, Americans value outdoor recreation, yet demand that its impacts be compatible with resource conservation (Recreation Roundtable 1999).

These data demonstrate the degree to which outdoor recreation is important to most Americans. In fact, outdoor recreation, rather than a special interest, would appear to be one of the few activities that most Americans share in common. Whether it be biking, hiking, camping, birding, snowboarding, butterfly watching, hunting, or fishing, most Americans are involved in at least one or more recreational activities that depend on outdoor natural resources.

## Maryland's Tourism is Strong and Continues to Grow

According to the Maryland Department of Economic Development (DBED 1998), almost two million travelers were accommodated by the State's network of Welcome Centers in 1997. In all, Maryland welcomed 27 million visitors (DBED 1998). The Maryland Department of Tourism Development (Hopkins, personal communication) reports that:

• In 1998, \$7.1 billion was spent in Maryland on travel, representing an increase of 7.6% over 1997

- \$591 million in state and local taxes was generated by tourism
- Maryland ranked 22nd in domestic travel in the U.S. during 1998
- The travel industry generated 101,000 jobs in Maryland in 1998
- International spending generated \$218 million in direct expenditures in 1997

Tourism in Charles County during 1998 generated (Roland, personal communication):

- \$58.3 million in direct expenditures (4.11% increase over 1997)
- \$15.31 million in payroll (7.04% increase over 1997)
- 820 people employed in the tourism industry (4.19% increase over 1997)
- \$3.13 million in state tax receipts (2.06% increase over 1997)
- \$2.7 million in local tax receipts (7.65% increase over 1997)
- \$459,000 in local hotel tax receipts

#### Charles County is an Under-utilized Nature Tourism Destination

Each year, Maryland's forty-seven state parks and six state forests welcome more than ten million visitors (Office of the Governor 1999). Judging by the materials we read while preparing for site inspections in Charles County, few of Maryland's visitors went to state parks or forests in Charles County to watch wildlife. This is incredible given that Charles County has several excellent wildlife viewing sites that can be improved and expanded. More critically, Charles County has a healthy, year-

round population of Bald Eagles—within easy reach of the nation's capital, the very center of the nation that these birds symbolize. Not only wildlife enthusiasts, but legions of visitors to the Washington, D.C. area could easily become visitors to Charles County in order to witness these charismatic, compelling, and popular birds. What better place to view the national bird than right next to the nation's capital?

## Birders and other Nature Tourists are Desirable Tourists

Demographics have fluctuated little among the populations surveyed by Fermata Inc., regardless of the site visited or the level of respondents' commitment to birding. Birders are aging but not aged, gender equivalent, highly educated, and prosperous. In an earlier study of birders traveling to New Jersey's Delaware Bay Shore, the mean age for a birding traveler was fifty-four. Less than a third of birders at the Delaware Bay Shore were retired. Women only marginally exceeded men in both surveys. Household size indicated an "empty nest" group of birders whose households consisted of two people. Survey subjects had completed almost seventeen years of formal education. Moreover, Delaware Bay Shore birders were relatively affluent: less than six percent reported annual incomes less than \$20,000, and almost forty percent reported incomes over \$100,000 (Eubanks et al 2000).

#### Birders are Already Spending Money along the East Coast

Travelers to Delaware Bay Shore devoted more than eighty days per year to birding, and spend almost nine days per year birding at the Bay Shore survey area. Their most recent trip prior to the survey lasted about four days. Travel-related expenditures totaled \$667 per person (\$463 within the study region). Therefore, they spent about \$121 per person, per day in the New Jersey Delaware Bay Shore area. This excludes expenditures made outside the region that were therefore of no economic benefit to the Delaware Bay Shore communities. If annual trip expenditures were consistent with recent visits as described in these survey responses, during the past year each traveler averaged almost one thousand dollars in direct expenditures along the Bay Shore (Eubanks et al 1999).

#### Avitourism can have a Significant Economic Impact on Local Economies

Visitors place a value upon experiences that exceeds the actual money they spend. A strict accounting of actual expenses must be additionally analyzed by estimating what is commonly called consumer's surplus in order to accurately estimate the economic value of tourism to an area. For something to have economic value, it need not be bought and sold in a store. Therefore, in addition to the direct expenditures associated with their most recent trip to the Bay Shore (Eubanks and Stoll, 1999), respondents were asked how much more they would have been willing to pay before they would have cancelled the trip. For the Delaware Bay Shore, the additional willingness to spend averaged over two hundred fifty dollars (Eubanks et al 1999).

Indirect and induced economic effects combine to create a multiplier that increases the impacts of direct expenditures. This multiplier, often a substantial amount, varies from region to

Table 3: The annual gross economic value of trips to New Jersey's Delaware Bayshore Per Visitor

Value	NJDBS
Total Gross Output (TGO)	\$1,997
Consumer's Surplus	\$559
Gross Economic Value (GEV)	\$2,556
(Eubanks and Stoll 1999)	

region. Based upon previous studies, the multiplier for travel and tourism averages between 1.5 and 2.5. For example, the U.S. Bureau of Economic Analysis in 1992 estimated a tourism multiplier of food and lodging sectors for Texas of 2.41. A study of the Rockport Hummer/Bird Festival determined that the induced/indirect multiplier in this Texas coastal region varied between 1.68 and 2.28 (Scott et al.1996). A similar range of multipliers for communities along the Platte River in Nebraska was found by Eubanks et al (1998). Walsh found that regional multipliers typically averaged 2.0 and generally ranged between 1.5 and 2.5 in the United States (1984). Therefore, when a local multiplier is not available, Walsh's multiplier of 2.0 is used as a reasonable compromise. In short, this economic jargon means that for every dollar spent, there is a ripple effect causing additional dollars to be spent. So when we estimated the economic impact for the Delaware Bay Shore area, we multiplied this "ripple factor" by the actual number of dollars spent to get a picture of the total overall impact.

Using Walsh's multiplier average of 2.0, the induced and indirect effects of these direct expenses would expand the economic impact of the surveyed birders to almost \$2,000 per person, per trip for the Delaware Bay Shore area. This figure, known as total gross output, when combined with how much more money the visitor would have been willing to pay, is the gross economic value. Gross economic value for the Delaware Bay Shore is roughly \$2,600 for each birder who visits the area (Eubanks et al 1999, Table 3).

The Maryland Office of Tourism estimates that every \$70,000 spent by domestic travelers generated one job in Maryland in 1998 (Roland, personal communication). In Charles County, each travel dollar in 1998 generated about five cents in state tax receipts, five cents in local tax receipts, and almost one cent in hotel taxes (Roland, personal communication). Using these Maryland estimates, we can approximate the economic impact of a successful Charles County tourism program. Applying New Jersey visitor numbers to Charles County trips, we can estimate that every 100 additional trips by Charles County travelers, which would generate about \$70,000 in direct expenditures within the region, will generate one job, \$3,600 in state tax receipts, \$3,100 in local tax revenues, and about \$500 in hotel tax revenues.

#### Avitourism is a Year-Round Activity

A distinct seasonality in avitourism exists along the Delaware Bay Shore coast (Eubanks et al 1999). Of the eight birding days per year in the area, five of those days occurred between March and August. However, wildlife is present in Charles County virtually throughout the year. Bald Eagles nest as well as spend winters in the region. The diversity of open bay, wetlands, and upland woodlands combines in a matrix of wildlife-viewing opportunities throughout the year (for example, waterfowl in the winter, woodland birds such as warblers, tanagers, and orioles in the summer, migrant neotropical migrant birds in the spring and fall). This diversity represents an opportunity to create a nature-tourism market that avoids the pitfalls of seasonality.

# Avitourism Requires Little Capital Outlay

Tourism conjures up images of Universal Studios, Las Vegas, and Disney World. This Disneyesque view of tourism, an industry circumscribed by a fabricated, fictitious set of enticements, is an important economic component in the travel and tourism market. Experiential tourists, however, are searching for the natural, historical, and cultural heart of a region, and their defining principle is authenticity. To this expanding segment of the travel and tourism market, what is real is what earns their time and investment. Their ambition is to be immersed in the richest possible natural, cultural, and historical experiences. There is no need to invest in an attraction, only to preserve and manage what is already present because the attraction is not man-made. It's what already exists.

Nature tourism, like historical and cultural tourism, is a quest for the essence, the soul of a region. The revelations may only be fleeting and momentary, but these exceptional moments are the very pith of experiential tourism and can last a lifetime in the form of vivid, unforgettable memories.

#### Avitourists are a Subset of Heritage Tourists

Between thirty-five and fifty-five percent of the nature tourists in four Fermata surveys indicated they had other interests in the area besides birding (Table 4). There is every reason to believe that birders and other wildlife watchers will also want to visit local museums, art collections, musical performances, and other cultural attractions.

Table 4: Interests other than wildlife-watching of birders				
	NE	NJ	Festival	Trail
Other interests in the study area during most recent trip?				
Yes	50.1	55.40	34.7	56.5
No	49.9	44.60	65.3	43.5
Additional interests? (%)				
Business	6.6	1.8	7.9	9.6
Sight seeing	36.0	35.3	47.4	90.4
Shopping	18.0	33.9	35.5	13.5
Visit family or friends	19.5	19.79	38.2	34.6
Experience local specialty (Victorian Cape May)		56.90		
Visit beach/ocean		62.4	32.9	55.8
Other	19.9	19.7	23.7	26.9

TravelingAmerica.com has categorized nature tourism as a subset of heritage tourism, which is "travel of 100 miles or more to experience a unique cultural, historical or natural event. The natural event is nature tourism or ecotourism." Marketing to birders can be done with the lucrative heritage tourism market in mind. To do this, it is helpful to know the characteristics, needs, and interests of the more general heritage tourist.

- The average American household takes one longer trip per year and two to three shorter trips over weekends or holidays
- Nearly one-half of U.S. adults participate in heritage tourism
- Over 50 million U.S. adults took a heritage tourism trip in 1998, creating an annual primary market of \$40 billion
- Forty percent of Generation Xers visit historic sites
- 92.4 million of U.S. adult travelers included a cultural, arts, heritage or historic activity while on a trip in 1998. Looking at the time they set aside for the activity, of those who included an extra activity
  - 61% added part of a day (\$50 in additional spending)
  - 30% added a night (\$150 in additional spending)
  - 5% added two extra nights (\$300 in additional spending)
  - 4% added three or more extra nights (\$450 in additional spending
- 53% of U.S. heritage travelers visit the South
- Heritage travelers spend more than traditional travelers

- Traditional travelers in Virginia spend about of \$350 per trip; heritage travelers spend almost \$700 per trip
- Heritage travelers stay an average 4.7 nights, versus 2.9 nights for all travelers
- When targeting heritage travelers, destinations have to spend less to generate more revenues
- Heritage travelers have varied interests
  - 31% visit a historic community or building
  - 24% visit a museum
  - 15% visit an art gallery
  - 14% attend live theater performances
- Heritage tourism creates jobs at twice the rate of traditional tourism and delivers a higher rate of return
  - \$55,000 to \$65,000 in new traveler spending creates the equivalent of one new job
  - It takes 200 traditional travelers to create the equivalent of one new job, whereas it only takes 100 heritage travelers to create the same job. It takes 1,000 new heritage travelers to create the equivalent of 10 new jobs
  - The small community investment in heritage tourism to achieve ten new jobs is not even remotely comparable to the massive outlay required to build infrastructure for new industry.

## Marketing Considerations

# Travel Habits of Birders

The travel habits of birders are similar to those of the heritage tourists described above. In separate surveys Fermata looked at birders along the Platte River in Nebraska, at New Jersey's Delaware Bay Shore, along the Great Texas Coastal Birding Trail, and at the Lower Rio Grande Birding Festival in South Texas. Birders we evaluated in separate surveys traveled for four different reasons: To see a natural spectacle such as Sandhill Cranes during their spring stopover in Nebraska; to see migratory shorebirds feasting on horseshoe crab eggs on the Delaware Bay Shore; to attend a birding festival; to engage in self-directed birding along the Great Texas Coastal Birding Trail.

Fermata asked respondents in each group about the people with whom they birded or watched wildlife (Table 5). The most common responses were a spouse, family member, or alone. In some cases, birders relied heavily on professional tour groups or on their birding club. Like heritage travelers, the majority of birding trips are self-packaged.

Birders learned about the tour destinations in a variety of ways, the most common being their birding organization, a magazine or newspaper article, travel guide or book, or a friend (Table 6). Sixty-six percent of the Birding Festival attendees learned about the festival through an advertisement.

Table 6: How birders learned about tour destinations (respondents could select
more than one category)

How learned about survey destination (%)	NE	NJ	LRGVBF	GTCBT
Birding organization or club	17.6	53.0	40.0	38.7
Magazine or newspaper article	30.9	45.3	53.2	53.8
Friends	21.6	37.0	31.8	28.0
Travel guide or book	14.3	24.3	23.2	28.0
Birding festival advertisement or information	17.6	18.8	66.8	37.6
Other	12.5	13.3	7.3	20.4
Family	9.1	12.0	5.9	8.6
Internet	dna	8.5	11.4	7.5

The most common means of transportation was by automobile. The largest number of people traveling by air comprised those attending the Valley Birding Festival, with only a small number renting a car at their destination (Table 7).

Table 5 Composition of	af traveling hirding (	groups studied by Fermata Inc.

Type of group birded or watched wildlife with (%):	NE	NJ	LRGVBF	GTCBT
Spouse	25.8	45.40	39.7	66.7
Friends	14.3	33.80	36.1	25.8
By self	14.0	33.60	25.1	28.0
Club or organization	13.3	29.60	1.6	18.3
Extended family	14.3	17.00	6.8	10.8
Professional tour group	5.0	8.30	34.2	8.6
Other	7.3	8.00	31.1	6.5

Table 7. Methods of travel.				
Method of travel (%)	NJ	LRGV	BF GTCB	Т
Automobile	87.60	43.5	61.1	
Camper/RV	2.00	8.3	13.7	
Charter Bus	0.20	0	0	
Public Bus	0.00	0	0	
Air	4.20	41.7	13.6	
Other	6.00	6.5	11.6	
(Combined mode)				

Heritage travelers take the great majority of their trips by car. Their trips are typically three to four hours from home, are thematically organized, take 2-5 days, are primarily in the same area, are self-packaged, cover 150-200 miles of travel per day, and depend on interactive and hands-on elements—what Fermata likes to call "experiential" elements (Traveling America.com 2000).

# Travel Packaging

According to TravelingAmerica.com, there is a \$140 billion unfilled demand in pre-arranged travel packages for new heritage tourism products. Pre-arranged travel packages account for twenty percent of leisure travel. Almost sixty percent of respondents in the 1999 National Leisure Traveler Survey indicated a desire to purchase combined lodging, transportation, activities and dining. This represents a potential mar-

ket of \$216 billion. This opportunity exists because few of the desired prearranged travel packages are currently being offered. The most successful new products are combinations of lodging, museums, natural and historic sites, and attractions that present a thematically cohesive new story. Marketing and operational coordination is required to deliver a seamless product to the visitor (TravelingAmerica.com 2000).

### Predicted Trends

TravelingAmerica.com predicts that by 2010 travel and leisure will serve as a mainstream lifestyle activity and that travel will become a normal technique for offsetting stress. Simplicity in daily lifestyles and cheaper living costs will allow consumers to allocate more money for leisure activities and less for consumer goods. Convenience of purchase will be very important, and the Internet will play a major role in planning trips. Typical planning will be done on short notice. For example, a traveler will plan on Tuesday for a trip later that same week. Unique destination stories and histories will increasingly draw travelers, especially when they are presented in conjunction with packaged driving trips (Traveling America.com 2000).

### Recommendations

#### Introduction

The need for strategically planned development of nature tourism in Charles County is critical. As things now stand, the county is missing a tremendous opportunity for enriching its quality of life for current residents, for attracting a high grade of future resident, and for serving as a unique nature tourism destination in the D.C. area. Charles County is essentially surrounded by water, and its tidal rivers the Potomac, Patuxent, Wicomico and Port Tobacco—remain almost completely unleveraged as sources of nature tourism revenue. The county's vast tidal marshes and wetlands as well as its large contiguous tracts of diverse forest habitats have gone unpromoted and unnoticed in planning decisions for the county.

Although the county has concentrated heavily on active outdoor recreation, the equally, if not more significant revenue sources embodied in nature tourism have been left unattended. Consequently, they have not developed. At a time when economic development is so crucial to Charles County, when surrounding areas have understood and acted on the principles of nature tourism that bring in revenue to local communities and protect their priceless natural resources, it is imperative that stakeholders in Charles County understand the value of nature tourism.

These trends directly benefit Charles County residents. They bring in money and they raise the quality of life. The indirect benefits are as great, or greater, because it is precisely the existence of natural resources that causes other types of industry to relocate to a community. Charles County, by playing natural beauty as its ace in the hole, can bring those businesses into its community. Anyone who thinks that a corporate CEO ignores quality of life issues when deciding on relocation is making a serious strategic mistake.

The most convincing reason to implement nature tourism is because it will put Charles County in firm control of its destiny. The people alive today, and the generations that succeed them, will be able to make choices about their community and their lives based on what's best for them—not because outside forces dictate the face, the pace, and the price of change.

Fermata visited Charles County, March 2-6, 2000, to evaluate natural sites administered by the county, the State of Maryland, and the U.S. Park Service for inclusion in a nature tourism program (Table 8). During the visit, discussions were held with local birders George Jett and Jim Stasz; Joanne Roland and Tom Roland, Charles County Office of Tourism; Charles County Public Facilities, Parks Department.

To implement a nature program under the auspices of a strategic plan, it is crucial that Charles County designate one site as the focal point for all of its nature-related activities. For travelers from outside of the region, it is critical to provide a single, anchor destination that serves as a hub for visitation in the region. Based upon our assessments, we recommend that Friendship Farm serve as this site. We also stress that any plan for nature tourism make maximal commitment to methods that will allow the program to offer diverse experiences on a year-round basis to different segments of the nature tourism market.

The structure of a nature-tourism infrastructure within Charles County, therefore, should include an anchor interpretive site (Friendship Farm), resource centers (sites with rich nature resources that lend themselves to visitation), and information centers that facilitate the visits of out-of-region travelers.

# The Visitor's Experience

In order to induce birders and other naturalists to make overnight stays in Charles County, a series of attractive natural history venues must be available. These sites must provide an authentic experience and take advantage of developed areas that can attract a larger array of birds and other wildlife.

Administrator	Charles County Site
Charles County	Friendship Farm Park Gilbert Run Mallows Bay (potential Federal/State/County administration) Marshall Hall (with Federal ties) Maxwell Hall Ruth B. Swan Southern Park
Maryland Department of Natural Resources (DNR)	Izaak Walton League WMA (141 acres)—not inspected Indian Creek CWMA (680 acres) Myrtle Grove WMA (1,410 acres) Chicamuxen WMA (381 acres) Blossom Point CWMA (available by boat-access only, not inspected or discussed in report)
State (Other than DNR)	Allens Fresh/Zekiah Swamp Chapman's Landing/Mt. Aventine Cedarville State Forest Doncaster State Forest Indian Head Wildlife Area Purse State Park General Smallwood State Park Chapel Point State Park
National Park Service	Thomas Stone National Historic Site Piscataway Park (a combination of historic and recreational sites)

For the authentic Charles County experience, nature tourists should have controlled access to those undeveloped areas that best represent Charles County in its original state. Wildlife viewers will also want to see as many different species as possible during their trip to Charles County; the third most important motivation for wildlife viewers, according to Fermata surveys, is seeing a variety of species. Charles County can create a series of powerful, exciting, and attractive destinations to birders and other nature tourists by

- Creating a nature center that will anchor the County's birding and natural history activities, serve as an educational facility, and help attract visitors to the County
- Increasing the number and types of watchable wildlife areas available to the public, particularly by increasing water access
- Adding landscaping and plantings to already modified sites that are favorably situated to attract birds, butterflies, dragonflies, and other animals of interest to naturalists
- Providing interpretive materials to tourists in the form of signage, brochures, checklists, and other materials that will facilitate and enrich their visit
- Identifying organisms that are local specialties and steering visitors toward them, to the extent that this will not disturb the habitat. The more animals and the more seasons represented in this list, the greater the year-round tourism potential.

- Providing attractive, authentic, competitively-priced lodging opportunities that will facilitate overnight stays
- Identifying other outdoor opportunities such as bicycling, kayaking, canoeing, fishing, and photography, and tying them into birding and other natural history pursuits whenever possible
- Organizing events such as birding or nature festivals, Birdathons, photography contests, and other activities that will call attention to the County's ecological richness.

### Util ize Charl es County's Varied Ecosystems

Charles County, with its impressive Bald Eagle population and wilderness areas, can easily establish itself as a major wildlife-viewing destination. It is the only place in proximity to Washington, D.C. that can guarantee a Bald Eagle sighting on virtually any day of the year. Surrounded by water, the associated wetlands also have tremendous drawing power. The lack of access to the waterfront is a constraint that could be remedied with the purchase of additional land. For a detailed list of the sites we visited, please see the section on site assessment.

Besides hosting a wealth of land and water birds, Charles County is inhabited by numerous other animals of interest to naturalists. Many of these, including carnivorous plants, frogs, salamanders, dragonflies, damselflies, and fish are found in association with the county's wonderfully diverse aquatic habitats. Canoeing and kayaking

facilitate both viewing and photographic excursions into the aquatic realm. In many parts of the county, interpretive signage has been installed at the water's edge to enhance waterborne natural history pursuits, and to prevent canoeists from getting lost.

The fields, marshes, forests, and woodland edges of Charles County are home to many of the butterfly species endemic to the Eastern Seaboard. Butterflies have become immensely popular among nature watchers, and now attract tourists to several national festivals. Gardening for butterflies, which involves providing food plants for caterpillars and nectar plants for adults, is a simple way to add visual appeal to otherwise unremarkable sites, as well as to attract butterflies and the tourists that pursue them. In the list of Charles County sites we visited, we make several recommendations concerning areas where butterfly gardens might be a worthwhile addition. In our experience, wherever butterfly gardening becomes popular, a small cadre of nursery providers develops. These provide native plants to individuals and communities that are nurturing such gardens. Some of the plant providers now manage considerable nurseries that sprung from this simple form of nature viewing.

Checklists for butterflies, and less often, dragonflies, are frequently available at nature centers, state parks, and national wildlife refuges. Such interpretive materials are not yet available in Charles County. However, local naturalists have drafted lists available for publication (Appendix 1). As an exam-

ple, we have appended a list of the Southwestern Maryland's dragonflies and damselflies extracted from a site on the Internet (Appendix 2).

### Habitat Acquisition, Creation, and Site Assessment

#### Site Acquisition

Nature tourism involves more than protecting what already exists. It requires a long-range commitment to expanding natural resources and restoring habitat that has been altered or destroyed. Nature tourism habitat needs expansion for the health of the environment, but it also needs expansion for the health of the businesses associated with it. In the same way that Disney invests in new attractions so that it can capture the most lucrative customer of all—the repeat visitor—so too must nature tourism programs incorporate a mindset that tries to offer improved nature viewing opportunities over the long term.

Since bird and animal species cannot be built in an Imagineering studio, they must be either enticed by habitat, or they must have their numbers increased by favorable environmental conditions. Either method—luring the nature tourist by luring in new species, or luring in nature tourists by exhibiting "spectacles" of large numbers of a single species—requires an investment in habitat, which is shorthand for "buy more land." Fortunately, these acquisitions need not be made all at once, and a working nature tourism plan can be implemented with many of the sites

already extant. Beginning a program of acquisition is, however, critical.

It cannot be sufficiently emphasized that the key to a successful nature tourism plan involves the county's commitment to acquire additional area for development as nature tourism destinations. Although nature tourism is in itself an end, it is critical to note that the development of an effective nature tourism destination will be linked to a multiplicity of other activities that will capture the interest of visitors. Nature tourists have multi-dimensional interests, and heritage tourism as well as other authentic cultural activities are logical extensions of nature travel.

Identifying land that is valuable for heritage tourism such as forests, meadows, undeveloped coastline, and marshes that are vulnerable to development is essential, and Charles County must play the leading role in such identification and acquisition. Because heritage tourists seek authentic experiences, heritage tourism thrives in areas that preserve their authenticity. Birders visit diverse habitats in close proximity so that they can increase the number of species they will see while in an area. It is much cheaper to conserve biodiversity than to recreate it. The same is true for natural areas: it is much easier to conserve a forested wetland, than to wait a century or two for one to grow. Every opportunity to preserve culturally, historically, or naturally important land must be made. Preservation can be done through purchasing, leasing, conservation easements, mitigation, oil spill restitution, or reaching agreements with individual landowners.

Fortunately, many species of wildlife benefit by merely having undisturbed habitat available to them. It is not always necessary to invest millions of management and operational dollars in newly acquired property. The simple tactic of leaving the habitat alone can afford the County the luxury of investing in a long term management plan, and delaying the capital investments associated with a high-use park for several years. It is possible to purchase land today without worrying about the funds to develop it because the natural habitat increases in value as a nature tourism resource simply by leaving it alone. On the other hand, delaying the purchase of land until funds are on hand to develop it can only result in increased costs and decreased opportunity to protect natural areas. Charles County should take the lead in every effort to purchase, protect and or conserve open space and culturally/historically important sites.

Fermata strongly supports the efforts being made to acquire and protect Douglas Point and the other properties involved in the Potomac Coast Conservation Plan. Not only will this protect some of the last wild coastline in Maryland's Potomac tidewater, and therefore protect water quality in the Chesapeake Bay as well, it may also provide much-needed public wateraccess. Adding thousands of acres of open space for wildlife viewing, historical interpretation, and recreation along the Potomac makes this a worthy project. The ultimate beneficiary of this project, which unites Maryland Department of Natural Resources and

the U.S. Department of the Interior, is Charles County. Thus, the county should be eagerly supporting the plan to acquire and protect Douglas Point, and taking a leadership role in the process.

The acquisition of Friendship Farm is also an intelligent strategic move. The heritage tourism potential in combining a working farm with a premiere wildlife viewing location is outstanding. However, the working farm aspect of this site should be viewed as a contextual or collateral aspect of developing a nature (especially an eagle) center. This farm would allow the visitor to experience both natural and human history as it existed at the founding of our nation. Additionally, the farm would appeal to a different segment of the travel market (particularly families with children), broadening the market appeal of the site.

#### Site Management

The apparent indifference shown by the state toward its properties in Charles County, and its almost total lack of interest in, knowledge of, and commitment to wildlife watching on these lands is disturbing. The efforts made to facilitate even traditional wildlife-related recreations such as hunting and fishing are marginal at best. Materials distributed by Maryland State Parks and Forests completely ignored several Charles County sites; neither did these materials make any mention of wildlife viewing in general. This emphasizes the necessity of Charles County assuming the role of leader, promoter, and educator for a comprehensive nature tourism program.

Visitors drawn to Charles County through its nature tourism promotion are not necessarily going to distinguish ownership of the properties they visit. Although the poorly managed or interpreted area they visit may be a state facility, that experience will tarnish their impression of the area in general and Charles County in particular. Because of the lack of interpretive facilities and absence of natural history sensitivity, out-of-state and international visitors interested in nature tourism will likely be unimpressed by Charles County if their visits include state-managed parks and forests.

We recommend that Charles County assume an active, leading role in motivating Maryland to provide a quality visitor experience at its facilities within the county. This should include progressive property management and the development of interpretive materials for wildlife watchers and other outdoor recreationists. Charles County should be prepared to ask the state to transfer the management of more of its resources to Charles County, or to investigate partnership opportunities such as a nonprofit park authority or concessions. The goal should be to bring the state facilities and all watchable wildlife sites up to a level that will reflect the best possible impressions on Charles County.

#### Site Assessments

Fermata visited twenty-six areas as potential sites for inclusion in a nature tourism program in Charles County. A complete list of the sites, as well as the sites we did not visit, is presented in

Appendix 3. The list includes information about each site and its location, and how useful the site would be if incorporated into a resource-based tourism program. In many cases we suggest that a site could be enhanced with interpretive signage. We assume that the Maryland Department of Natural Resources already possesses detailed information concerning the array of plants and animals at its various sites.

Tapping into this information and making it available to the public in a way the public can understand and use will be a critical task. It should not be a daunting one, however, as most state park departments have a public information specialist who can facilitate extracting and presenting this information to interpretive specialists.

#### Overall Site Recommendations

A number of the sites we visited are unique and can serve as the core components of a wildlife viewing-based tour of Charles County. All the sites have at least minimal appeal as wildlife watching venues. Many would be lost in a sea of similar habitats, were it not for their state or county designations, or their historical value. Nonetheless, as urban sprawl slowly blankets our forests and fields, and natural habitat disappears, every preserved site gains importance as part of our remaining natural heritage. For this reason, none of the sites should be disregarded simply because it does not possess a particularly impressive resource. Moreover, Charles County should look at this as an ongoing investment, in which

resources with a relatively low value today will certainly experience a significant appreciation in value over the years.

Among the sites we visited, five struck us as being especially attractive for a wildlife viewing program: Friendship Farm Park, Chapman's Landing/Mt. Aventine; the 13-mile Railroad Bed/Mattawoman Natural Environment Area; Maxwell Hall; and Mallows Bay/Douglas Point.

### Friendship Farm

Friendship Farm Park, perched on a bluff over Nanjemoy Creek, has a sweeping vista, yet the water experience is intimate. Bald Eagles nest close by, and the park has Native American and recent settlement historic ties. An existing structure on the property could be modified into an interpretive center. Ideally, a facility perched on the bluff with a deck and large picture windows would allow visitors to take in the grand view. Trails, wildlife observation



Friendship Farm



Friendship Farm

areas, camping, and shoreline fishing areas could all be developed with a modicum of effort and investment. The protected waters and miles of accessible tidal marsh allow exceptional kayak and canoe activities.

Because of Charles County's foresight in purchasing this property, it is perfectly poised to become the focal point of nature tourism development for the County. Combining wildlife watching with a working farm in such a way as to complement the wildlife and exert minimum impact upon it will only increase this site's value as a nature tourism destination. The name of the farm itself makes visitors feel welcome in Charles County. More importantly, the context provided by placing natural and human history within a single site illustrates a more authentic and accurate perspective of this region.

Friendship Farm has significant potential for a multitude of ecotourism and

outdoor recreational opportunities. The site would be attractive for a program stressing estuarine studies, and the surrounding woodlands would permit a broader program including hiking, camping, and nature interpretation. We recommend that some of the site be allowed to revegetate in order to provide habitat and windbreaks. Ultimately, this site should have a visitors' center with floor-to-ceiling picture windows that overlook the river. This center could interpret the estuary below, fisheries issues, the area's Native American and post-European settlement history, and provide permanent spotting scopes through which to view the Bald Eagles nesting nearby. Charles County has made a significant investment in its future as a nature tourism destination by acquiring Friendship Farm Park. Early success with this project should set the stage for future acquisitions in order to expand Charles County's heritage tourism offerings.

### Bumpy Oak Road/ 13 mil e Naval Rail road Bed/ Mattawoman Natural Environment Area

This was a particularly impressive site. The rail line traverses part of the Mattawoman Natural Environmental Area. The site's values are obvious and cannot be overstated. Railroad tracks on the property partially impede use by hikers and cyclists, but the site is completely accessible to nature tourists seeking to observe and photograph the area's butterflies, wildflowers, and other features.

Only a short drive from the traffic crush of Washington, D.C., this site is unquestionably one of the premier areas in the county for a nature trail that would allow cycling as well as hiking. Bald Eagles, Red-headed Woodpeckers, breeding warblers, a variety of butterflies and dragonflies can be easily seen along the woodland edge.

The tracks should be converted into a hike-and-bike trail that emphasizes the natural attributes of the area in a marketing program that targets nature tourists. Where the trail skirts wetlands, we recommend adding boardwalks or platforms that will provide birders a place to view without obstructing passing cyclists. There are currently plans for a Mattawoman hike and bike trail that is more centrally located than the one we discuss here. The more centrally located trail should receive priority for implementation.



Mattawoman Natural Environment Area



Mattawoman Natural Environment Area

### Maxwell Hall

This large property is located on the thumb of Charles County that extends to the shores of the Patuxent River. This area is part of the Patuxent River Natural Resource Management Area. It is composed of agricultural lands bordered with light woodland. There is also a large section of forest that connects with Swanson Creek. A saltwater

pond just inland of the rivermouth is a locally uncommon biotic feature. Equestrian use has been proposed; riding trails could be developed between the existing dirt roads and the borders of the many large agricultural fields. The eastern margin of the site is a sandy beach on the Patuxent River. Although this is a rare commodity in a county with little public water access, we feel the presence of the power plant looming over this site ruins much of its authenticity and integrity. On the other hand, fishermen and crab fishermen who have few alternative sites for water access would probably be less disturbed.

Fermata's inspection included only the agricultural areas of this future park. We suggest that the County consider using the area as an event site, making it available for activities such as rodeos and livestock fairs, concerts, craft fares, outdoor theater productions, recreated



Maxwell Hall

historic communities, Renaissance festivals, auxiliary activities for nature festivals, or similar operations that would make effective use of the expanse of open green space. A trailer, RV, or camping park would be another possibility. If these types of activities are begun, they should not create noise or other distractions that would detract from the experience in the wooded section of Maxwell Hall. Because of the small amount of remaining habitat, we do not envision the agricultural site as a natural history venue. We do suggest that the state or county make some effort to protect the marsh just west of the beach.

The 430 forested acres offer excellent areas for birding and hiking, although we did not survey them personally. Local naturalists recommend that a nature trail using the existing farm road be used to incorporate the area's large tidal marsh guts, beautiful hardwood bank overlooks, and wildlife viewing areas. Such a trail would pass through a magnificent stand of mountain laurel and connect to Swanson. Maxwell Hall could also increase access to the shoreline. At low tide, approximately one mile of beach is available for walking and exploring. During the fall, this area should be excellent for observing migrating fall waterfowl. In order to maintain the tranquility of the area, water access could also be limited to self-powered watercraft such as kayaks, canoes, and jon boats. This would also minimize wildlife disturbance, and the prohibition of motorized craft would head off the possibility of the area being converted into a marina.

### Chapman's Landing/ Mt. Aventine

This site offers a more expansive view of the water, and although the view is not as intimate as Friendship Farm's, it does offer a dramatic view of Virginia across the Potomac. This immense piece of property is an Assisted Project of Program Open Space, administered by the Maryland Department of Natural Resources. At the end of a long, curving, tree-lined drive, a fine old house sits atop a bluff over the Potomac. Below the house, a broad terrace stretches to the river, across which is Fairfax County, Virginia. The structure on the property would make an excellent educational facility. Depending on how it is developed, it could still be rented as an elegant platform for parties, fund-raisers, or other social/political events. The amount of acreage surrounding the property is an undeniable attraction.

Making this huge site available to the public would be a real prize for the citizens of Maryland. The location alone guarantees that any project would be, at the very least, attractively situated. Beyond that, the building would make an excellent regional center for the interpretation of local cultural history as well as natural history. Hiking trails could radiate out from the center. allowing access to the surrounding woodlands and the river below. Turf wars within departments have confused access to Chapman's Landing; currently, plans for the property are unsure. The entrance is gated but limited access



Chapman's Landing



Mt. Aventine

seems to be available. 'No Trespassing' signs were observed in some areas of the property.

### Mal I ows Bay/Dougl as Point

This one-mile natural embayment is one of the nation's largest "ship graveyards." Two hundred and thirty-six wooden ships were originally brought here for salvage, but they were later abandoned. Many protrude from the



Mallows Bay

water and have become vegetated, creating unique islands with their own mini-ecosystems. This is unquestionably one of the state's most engaging natural-historic areas. Opportunities to observe nesting and migrant shorebirds and waterfowl are very good here. Bald Eagles nest and feed in the immediate vicinity. The area is also a mixing ground for butterflies of the north and south. Local enthusiasts have identified over one hundred species, including some from the north that do not normally occur this far south, and other species from the south that do not normally occur this far north. Moreover, this would be a good site for historic interpretation dealing with the origins of the various ships as well as their attempted salvage.

Public access is impeded by land ownership considerations, and the jurisdiction of the entire site is unsettled. This area is also being targeted for a gravel strip mining operation. Fortunately, it appears that the Potomac Coast Conservation Plan will buy and link over 5,000 acres of property here, insuring the future protection of the site. The umbrella of jurisdiction that will combine four large parcels of property should open up public access, making this a major drawing card for Charles County. Additionally, it will be easier for the state and county to promote the newly combined areas, attracting visitors to an interrelated set of attractive, biologically and historically important sites. Unified directional and interpretive signage will enhance the sites' collective appeal. Kayaking or canoeing could facilitate historical interpretation, but might have to be curtailed during spring if sensitive bird species are nesting on the ship-islands. An interpretive center at the ship graveyard would be an appropriate addition. Acquisition and protection of this area is a priority issue, and we urge the county commissioners to act quickly to

see that the future of this important historical and natural area is secured.

### Cedarvil I e State Forest

By virtue of its excellent road access, attractive habitat, acreage, and informative fish hatcheries, we gave Cedarville high marks. Local birders didn't mention this site, probably because the sites they emphasized were places to look for rarities or specialties. In its current state the county is missing a major nature tourism opportunity here. Alternately labeled as a "State Park" on U.S. 301 and as a "State Forest" elsewhere, it contains independent freshwater and saltwater fish hatcheries, and greets its visitors via a Department of Natural Resources police facility. Indifference to and ignorance of this site's value as a wildlife watching venue could be rectified with a cohesive nature tourism policy.

#### Habitat Interpretation

Possessing adequate natural resources is the sine qua non for any nature tourism program. However, once the resources are identified and the visitors are visiting the site, it becomes critical to have mechanisms in place that will make the experience a meaningful one. In other words, information about the site and interpretation of the habitat often makes the difference between whether a visitor is a marginally satisfied one-timer or an enthusiastic repeat visitor. A common thread running through the interpretation of the variously administered Charles County sites is the absence of even the most

basic types of investment. Signs are either mediocre or completely lacking. A few locations do have signs directing visitors to boat ramps, fishing access, hiking trails, or other features. In one of the worst cases, visitors to Chapel Point Wilderness Management Area or Purse State Park will find no signage of any type whatsoever. The fact that the area is parkland, wilderness area, or even state property is totally unsigned. Tourists benefit from clearly marked and rationally placed signs, and communities show their commitment to nature tourism by pointing out the things they've got to offer.

Visitors are usually more comfortable following a defined route, not only because of time constraints but also due to unfamiliarity with an area. Signage tells them they aren't trespassing—an important issue in virtually every state. Visitors are more likely to continue on with an interesting series of sites if there are signs telling them about the area. If a particular loop is interesting,



Cedarville State Forest

fun, and easy to follow, visitors will return again to re-experience the initial fun and to explore. Funds spent on signage are repaid to the community with tourism dollars as visitors confidently drive well-marked routes dotted with hotels, restaurants, gas stations, and other elements of a healthy tourist infrastructure.

Signs can stress common features, unique features, or information about interrelated loops. Signs can be based on thematic elements: geographic—The Headlands Trail, biotic—The Bald Eagle Trail, jurisdictional—The Charles County Trail System, vehicular—The Kayak Trail, or gastronomic—The Crab-lover's Trail. In our opinion, all Charles County driving routes and their sites deserve highly visible, uniform signage.



Cedarville State Forest

Interpretation also involves informative and regulatory signs, trails, and a naturalist on-site. Signage should be used to link sites together and tell the unique story of Charles County's natural heritage and wildlife watching opportunities. Signs should also engage people who happen upon the site, tourists who have been directed to them, and residents who want to learn more about their own community. Another benefit of signage is that it can act to police an area when no one is available to do so in person. Interpretive signage in Charles County should be thematically standardized so that visitors can easily recognize each element of a given trail or system.

Complementing the new signage, a map or brochure should be produced to give directions and detailed information about each site on the driving trail. This should be colorful, artfully done and, when folded, sized to fit into a brochure rack. See the birding trail discussion at www.fermatainc.com/ttandt for samples of the Great Texas Coastal Birding Trail maps.

### **Unifying Theme**

Conservation and ecotourism projects, be they district, state, or countrywide, often utilize a charismatic animal as a flagship, keystone, or cornerstone species. Typically, these are charismatic mega-fauna, impressive mammals, such as Grizzly Bear, Giant Panda, African Elephant, and American Bison, or impressive birds such as Whooping Crane, Brown Pelican, or Harpy Eagle. Smaller species such as Koala or Black-footed Ferret may be chosen—if they are widely recognized and appealing. Dramatic plants, too, including the California Redwood, Giant Sequoia, and Bristlecone Pine have all championed conservation causes. Although such conservation efforts appear to

rally massive effort toward a single species, in reality, such programs offer protection to the whole diversity of plants and animals that share the keystone species' habitat.

The flagship symbol of the United States has long been the Bald Eagle, a once-threatened species whose populations have now increased greatly in the northern portion of the continent. Large, powerful, fiercely attractive, and widely recognized, it has come to stand for freedom in the United States. In assessing potential ecotourism venues throughout Charles County, Bald Eagles were seen at no less than fifteen sites.

Knowledgeable birders all agreed that sightings of Bald Eagles in Charles County were virtually guaranteed any day of the year.

Charles County's year-round high density of Bald Eagles points to this species as the most likely candidate for a symbol of the county's ecotourism promotion efforts. We strongly recommend that any nature tourism program be designed around this universally recognized and charismatic bird. The more directly Charles County can pair its image with this bird, the more powerful its impact and identity will be as a nature tourism destination. We strongly recommend adding a Bald Eagle image on everything in the county from logos on county vehicles, road signs and grocery store shopping bags, to hats, shirts, and all tourism material produced by the county.

### Nature Tourism Anchor

Charles County should create a facility that would be open to the public for after-hours rental and/or meetings to anchor the county's birding and natural history activities, serve as an educational facility, and help attract visitors to the County. This center would serve as a multipurpose facility that can be an asset to the community and an income generator. The center should take the form of a Nature Center, a Visitors Center highlighting the experiential tourism opportunities in Charles County, a convention or meeting center in the midst of a wildlife viewing area, an outdoor mall, store or nature business incubator. Whatever form the facility takes, the integrity of the natural resource should take precedence. The center must also have information about wildlife watching areas in Charles County, interpretive information and displays on the Bald Eagle and other Charles County highlights, be landscaped to reflect native habitats, and teach residents how to landscape their property in a way that will attract wildlife. The center should be the hub of all nature and experiential tourism activity in Charles County. Serious consideration should be given to using Friendship Farm as this hub.

# Interpreted Driving Tour

Texas, Minnesota, and Alabama have them; Florida, Vermont, North Carolina and Virginia are planning them—
Maryland, beginning with Charles
County, should get in on the action.

Charles County could create the first driving loop, or take the lead in developing an area or statewide Maryland Birding Trail. Fermata helped the Texas Parks and Wildlife Department receive over \$3 million in ISTEA and TEA-21 funding to create the Great Texas Coastal Birding. Similar funding searches by Fermata were directly responsible for the successful drive to implement a birding trail by the Virginia Department of Game and Inland Fisheries. The first phase of their trail will cover Northern Virginia and the Coastal Plain, and has received \$400,000 in fundin

Charles County should be prepared to link their sites to the Virginia trail, work with neighboring counties to bring nature tourists from Baltimore's airport through Charles County and into Virginia, and lobby the state to create a statewide birding trail system. The keys to a successful birding trail are identifying prime birding and wildlife viewing areas, providing unified signage to direct people to the sites, clearly marking each site, and creating a well-designed map to provide directions to and information about each site.

### Special Events

Charles County could further leverage its Bald Eagle population by hosting a birding festival to bring in nature tourists. Maxwell Hall would be an ideal location for such a festival, given its open space that would easily support a large gathering. Birding festivals are a proven way to bring tourists into town for a weekend while promoting bird and habitat conservation. The timing of the festival could coincide with seasons when the eagle populations are at their largest, and at times that would most benefit local hotels and restaurants. It should not compete with other festivals in the state. Several states with Bald Eagle populations do birding festivals centered on the eagles. Information on birding festivals is available at:

# http://www.americanbirding.org/evnt-festgen.htm

Other events to consider include a wildlife photography contest, modeled after the Valley Land Fund's contest in Texas' Rio Grande Valley. This event has raised local awareness about native wildlife, and over \$100,000 for habitat conservation. Although the Valley Land Fund's competition focuses on private lands, Charles County's competition could include private and public lands. Income is generated through entry fees paid by both photographers and landowners, who both share the prize money. Detailed information is available at <a href="http://www.valleylandfund.com">http://www.valleylandfund.com</a>

Another type of event is a competition in which birders vie to see who can see the greatest number of species in a single day. Serious birders will travel to Charles County to scout out locations to plan their route for the competition, and will also return for the competition. These contests attract school and scout groups, especially when categories and awards exist for beginning and/or young birders. Bird-a-thons can be run

in conjunction with the these "Big Day" competitions, in which participants collect pledges for each bird they see in a given time period. The Texas Birding Classic is a week long competition along the Texas Coast, utilizing the Great Texas Coastal Birding Trail and involving three separate Big Day competitions. New Jersey hosts the World Series of Birding, another Big Day event. Information about the Texas event is available at <a href="http://www.tpwd.state.tx">http://www.tpwd.state.tx</a>

### Eagl e Cam

Digital and Internet technology can provide Charles County with an excellent educational marketing tool by setting up an Eagle Cam. When people visit the Charles County tourism website, the Eagle Cam logo would link web viewers to a digital camera focused on an eagle's nest. Viewers will be able to watch a pair of eagles raising their chicks. This can be expanded to include a waterfowl-watch broadcast, beaver dam-watch and any other sites of interest that Charles County wants to promote. Permits may be needed to set up the Eagle Cam.

### Tourism Infrastructure

A serious shortcoming of Charles County is the lack of attractive lodging facilities. A particular deficiency is in accommodations that capitalize on the county's historic and maritime resources. Beyond the usual small hotel chains and a couple of motels, the county offers only two bed and breakfasts.

Nature tourists tend to prefer bed and breakfasts over hotel chains because they can

- Meet and interact with local residents
- Experience local foods and ambiance
- Stay in rooms that are individually furnished and decorated rather than simply appointed in the usual cookiecutter manner
- Share experiences with other guests
- Arrange special services such as early breakfasts for birders or box lunches

Additionally, suitably placed B&Bs often function as a hub for outdoor adventures such as bicycling, canoeing, or birding. We suggest that the development of additional B&B facilities be a priority in the county.

Charles County's proximity to Washington, D.C., combined with its large tracts of wildlife habitat and Bald Eagle population, makes it an attractive destination for day trippers and weekend visitors. Charles County should also try to take advantage of the Coastal Birding Trail system planned for Virginia.

Developing a series of combined experiences (packages) that tells the story of Charles County should be a priority.

These packages must be

- Available for purchase by individuals
- Made available to travel agents who can then offer them to their clients
- Available on the Internet

- Ready to handle with only short-term planning as tourists often book and travel in the same week
- Planned to consist of 1, 2, or 3-day experiences, based at one lodging point
- Driving tours, utilizing the tour routes and stops described above, allowing tourists to use their own or a rented car, covering approximately 200 miles during a day's birding. The suggested tour route should be planned to highlight as much good birding habitat as possible, including undeveloped areas, and lots with native vegetation
- Intriguing, authentic, interactive, thought-provoking, and comprised of as many different birding habitats as possible
- Able to deliver high quality food and accommodations
- Let tourists experience the local culture and natural history

Packages should be designed to maximize current opportunities, including add-on programs for nearby birding and nature festivals. Charles County should also consider hosting its own nature festival, centered on the Bald Eagle and highlighting local cuisine.

Research conducted by Fermata Inc. has demonstrated the highly segmented nature of the experiential tourism market. All nature tourists are not created alike, nor do they express the same demands, desires, or aspirations. The goal of any nature tourism plan is to match nature resources with segments of the market that are most attracted to

those specific resources. The recommendations made within this report are intended to diversify the natural resources and opportunities in Charles County and therefore allow it to market to a much broader array of nature tourists than has been traditionally targeted.

### Potential Funding Sources

The key to any successful nature tourism program is funding. There is an abundance of funding sources for habitat enhancement, wetland protection, and economic development. However, most of these funding sources require matching funds in varying percentages. Therefore, it is important that Charles County be prepared to invest significantly in its nature tourism program. Whether through sales tax revenues, occupancy taxes, or contributions on the part of businesses with a vested interest in tourism development, a permanent funding source for nature tourism development should be established.

#### Hotel/Motel Tax

Nature tourism does not differ from traditional forms of tourism in its economic impacts and development potential. Therefore, it is entirely appropriate to devote occupancy tax revenues to the promotion of nature tourism programs in Charles County. Our suggestion is that the county and local entities use such revenues to obtain matching grants, thereby increasing the impacts of these dollars on nature tourism development. Before occupancy taxes begin to filter down into a community, there needs to be an infrastructure devoted to hosting guests. As discussed earlier, there is a paucity of B&Bs in the Charles County area. Information about business plans, accreditation and promotion can be provided by national organizations promoting B&Bs, and development money may be available to build or remodel existing facilities in Charles County. At the very least, Charles County should consider ways of making bed and breakfasts more easily to establish and operate.

#### Government Grants

There is an abundance of government grants available for wildlife and habitat enhancement. The difficulty lies in identifying a specific funding source that matches a specific need, and in devoting the staff time necessary to apply for and follow up on these funding opportunities. Potential funding for the enhancements mentioned in this report includes:

- · U.S. Fish and Wildlife Service
- Environmental Protection Agency
- U.S. Department of Commerce
- NRCS
- Maryland's Rural Legacy Program
- Maryland Department of Transportation (TEA-21)

Fermata is prepared to work with Charles County in identifying specific funding sources and in developing the appropriate funding proposals.

Charles County has a rich and varied wildlife viewing habitat. With that richness comes a wealth of opportunity and choices. There are, however, several short-term projects that can be immediately implemented while also engaging in longer term improvements. Our recommendation for implementation follows.

## Impl ementation

### Habitat Protection

#### Douglas Point

Keep this pristine area wild and green. If the county wants to attract nature tourists, strip mining, clearcutting woodlands, and building machinery to reach ships in a dredged channel is not the way to go. The additional noise, dust, and traffic will not increase the quality of life for current residents, and it is doubtful that it would attract new companies other than similar extraction-related ones. Charles County leaders and citizens should do what they can to see that as much of these forests and wetlands are left undisturbed if the community is going to commit to a comprehensive nature tourism plan. Today's leaders of Charles County must have the foresight to preserve natural resources for the future dividends—aesthetic and financial—that they will pay in the future.



Purse State Park

# Short-Term Site Improvement

The following sites can become premiere wildlife watching sites with minimal capital outlays. Please refer to previous comments and the site assessment descriptions in Appendix 3.

The major resource sites mentioned for immediate integration into the Charles County nature tourism complex (Maxwell Hall, Chapman's Landing, Mt. Aventine, Mattawoman Natural Environment Area, Mallows Bay/ Douglas Point) should be enhanced for visitation with interpretive signage, nature trails, photographic blinds, observation platforms, and special viewing features such as feeding stations and water features.

### Long-Term Site Creation and Improvement

With an investment in a welcome/interpretive center, Friendship Farm, should become the hub for Charles County's heritage tourism operation. The bulk of Charles County's capital efforts should be directed towards turning Friendship Farm into the anchor for the county's heritage tourism program. Once the county has committed to developing Friendship Farm, a thoughtful masterplan involving all stakeholders and potential supporters in the community should be created.

## Interpretation

### Birding and Nature Trail Maps

Charles County should investigate governmental agency interests in developing a statewide birding trail modeled after the Great Texas Coastal Birding Trail. Maps should be designed and produced to complement the trail. The five sites mentioned in the recommendations would be worthy of inclusion on a statewide driving nature trail. If there is no agency interest, use the sites described above and in Appendix 3 as the core for a county route, and solicit input from private landowners who would be interested in a fee system that would allow birders limited access to their property. The county can start this process immediately, beginning with orientation meetings and site nominations. Fermata is prepared to help Charles County with such a project.

If the trail is not feasible, design markers designating sites as official wildlife viewing spots, and post them at the sites described in Appendix 3. Maps that are already published for the County should then add an icon to mark those areas in the county.

## **Appendix**

### Site Assessment

The sites are presented from north to south, beginning with those sites east of U.S. 301, followed by those west of U.S. 301.

### Cedarville State Forest, Brandywine

Description: Cedarville is a 3,500-acre park located east of Waldorf off U.S. Rt. 301. Three hiking loops take visitors from conveniently scattered parking lots along dirt roads into the park's forest. A diked pond adjacent to Zekiah Run provides habitat for fish, birds and dragonflies. Carnivorous pitcher plants grow near this pond's edge.

Additionally, there is access to the generally inaccessible Zekiah Run itself. Camping, fishing, hiking, and bicycling are encouraged; and some handicapped access is available. There is a freshwater fishery facility with tours given by the technician in attendance. The display tanks contained a variety of fish and turtles. This brief tour of captive animals comprised the largest amount of nature interpretation we encountered during our Charles County site inspections.

Obstacles: The fact that this is a state facility makes it unlikely that Charles County will be able to obtain significant support from this site in developing a nature tourism plan.

Management's lack of wildlife awareness was in line with other DNR sites we visited, such as General Smallwood State Park. Park administration seems to be unaware of, or indifferent to, the

birding, wildlife watching, or photography opportunities related to nature tourism.

Comments/Recommendations for this site: Birds, reptiles, amphibians, butter-flies, dragonflies, carnivorous plants, the fresh- and saltwater fish hatcheries, and Zekiah Run could all be the subject of natural history interpretation signage or programs. Lodging in Waldorf, while not authentic, is convenient.



Gilbert Run Park

#### Gilbert Run Park, Dentsville

Description: This park is a 180-acre wooded parkland with a 60-acre freshwater lake. This is a family activity park, great for birding, and possessing various wildlife attractions such as a new boardwalk that borders an active beaver lodge. Bald Eagles are common and often seen. There is an extensive trail system, a fishing pier and a nearby nature center. The park is located near the headwaters of Gilbert Run Swamp. The park has good habitat for birds, dragonflies, amphibians, plants, and

other organisms. The beaver lodge adjacent to a boardwalk is an important and unique feature to the area.

Obstacles: Serious consideration will have to be given to balancing the large number of recreational users on the weekends with wildlife viewers, who often seek to avoid crowds.

Comments/Recommendations for this site: We recommend an increase in signage explaining park features, especially those associated with the beaver dam and lodge. During the winter months when park availability decreases, limited entrance for hikers should be considered. Recreational users should have ample opportunities and enticements to access the nature viewing areas.

### Maxwell Hall, Benedict

Description: This large property is located on the thumb of Charles County that extends to the shores of the Patuxent River. The area in which it is situated is part of the Patuxent River Natural Resource Management Area. It is composed of agricultural lands bordered with light woodland. A saltwater pond just inland of the river is a locally uncommon biotic feature. Equestrian use has been proposed; riding trails could be developed between the existing dirt roads and the borders of the many large agricultural fields.

Obstacles: The eastern margin of the site is a sandy beach on the Patuxent River; although this is a rare commodity in a county with little public water access, the presence of the power plant looming over this site adversely affects the integrity of the site for nature viewing.

Comments/Recommendations for this site: Fermata's visit included only the agricultural areas of this future park. For that area, we suggest that the county consider using the site for special events, making it available for activities such as rodeos and livestock fairs, concerts, craft fares, outdoor theater productions, recreated historic communities, Renaissance festivals, auxiliary activities for nature festivals, or similar operations that could make good use of the expanse of open green space. A trailer, RV, or camping park would be another consideration. Because of the small amount of remaining habitat, we do not envision the agricultural site as a natural history venue. We do suggest that the state or county make some effort to protect the marsh just west of the beach.

The 430 acres that are forested should offer excellent areas for birding and hiking. Local experts recommend that a nature trail, using the existing farm road, should incorporate the area's large tidal marsh guts. Its high hardwood banks offer overlooks and wildlife viewing areas, and pass through a magnificent stand of mountain laurel, finally connecting to Swanson Creek. This area should definitely be developed for nature tourism. Maxwell Hall can also increase access to the shoreline/beach. At low tide, approximately one mile of beach is available for walking and exploring. During the fall, this area should be excellent for observing migrating waterfowl. Water access could also be developed for kayaks, canoes and jon boats. This site should be limited to self-powered water craft

in order to decrease the impact on wildlife. This would also keep the county from competing with local private marinas and powerboat launches.

Any monies received as PEPCO oil spill restitution could be used for the development of trails, wildlife observation blinds, access roads, parking, and restroom facilities.

### Allens Fresh and Zekiah Swamp

Description: Zekiah Swamp, a 20-mile long and 3.4-mile wide wooded bottomland waterway, is rich with wildlife. At its northern extremes, it may be accessed within Cedarville State Forest. Moving southward, it flows through the county to the main headwaters of Wicomico Creek. Presently, there is only very limited access for anglers and birders, primarily at the bridge on Maryland 234, which is the northwestern edge of the Zekiah Swamp Natural Environmental Area. The waters here offer opportunities for canoeing, birding, fishing the early and prodigious run of Yellow Perch, photography, and public education. Special birds found here include Least Bittern, King Rail, Short-eared Owl, and Seaside Sparrow.

Obstacles: Local birders agree that this is one of the finest sites in the county, despite the limited access and nearly continuous traffic noise. There is additional road access southeast of the bridge, but ownership issues prevent most people from entering.

Comments/Recommendations for this site: We recommend providing, at the very least, a broadened parking area that will encourage safer visits, com-

bined with a marsh boardwalk facility that would be available to all types of users. Additional road access might also be arranged to get birders, photographers, and anglers off Route 234 and into the most interesting habitats.

### Crain Memorial Welcome Center, Rt. 301, 1 mile N of Potomac River-Harry Nice Bridge

Description: This is an important site for educating travelers entering Charles County from the south.

Obstacles: Available brochures and informational material offer little to entice naturalists to remain in the County.

Comments/Recommendations for this site: Bald Eagle imagery should be visible here and information on eagles and other Charles County birds and birding sites should be prominently displayed. Maps presenting the County's natural history venues would be an important addition. Information on lodging that is friendly to birders, bicyclists, canoeists, and other outdoors people would help keep travelers in the county, or suggest future returns.

## Cuckhold Creek Wetland, Swan Point Road

Description: Excellent habitat for marsh birds as well as other species; snags for woodpeckers and other hole-nesters. The shallow waters also appear to be an excellent dragonfly site.

Obstacles: Ownership appears to be a combination of County and private entities, with some possibility of coop-

eration that would make this site available to the public.

Comments/Recommendations for this site: TEA-21 projects could enlarge the grassy parking area, and a trail could be built along the water, or just inside the woodland to provide viewing cover for birders. Signage could interpret the importance of dead trees to snag-nesting birds, and how small wetlands provide habitat for a number of organisms such as marsh birds, amphibians and dragonflies.

### Southern Park, Issue

Description: Woodlands and the Potomac River partly surround this attractive park and its ball fields. A large parking lot is already available. During our brief visit we saw many species of birds including Tundra Swans and a variety of songbirds.

Obstacles: None.

Comments/Recommendations for this site: We recommend moving the playground equipment (now located near the water's edge) just farther back into the park, then planting additional trees and shrubbery near the water habitat for both nesting and migrant birds.

Enhancement money may be available in the form of TEA-21 funds.

#### Cobb Island

Description: Cobb Island, bordered by the Potomac and Wicomico rivers, attracts birders, anglers, boaters, and seafood lovers. Quaint architecture and a cozy atmosphere are available to those willing to pay for it, as there appears to be virtually no public prop-



Cobb Island

erty on the island. Indeed, the island's best-known birding site is a small parking space adjacent to the Milestone in Radio History sign. Here, approximately fifty feet of shoreline is available to bird watchers searching for Northern Gannets, scoters, and other marine species. Osprey nests are present on natural and artificial platforms.

Obstacles: Private property issues complicate visitation by tourists.

Comments/Recommendations for this site: Additional public access to the island's edge is a key issue, especially if efforts are going to involve attracting seabird watchers to the island. On the streets that end at the waterfront, Charles County apparently has right-of-way with water access at the end of the street. Working with the local landowners to determine which areas would have the least impact on adjacent property, Charles County should consider developing the right-of-way into wildlife observation areas. Begin with



Piscataway Park

landowners who have an interest in wildlife observation, and in particular businesses who see the right-of-way as an asset that would attract more customers.

Piscataway Park/Marshall Hall Boat Ramp, end of Rt. 227

Description: Boat Ramp, popular for shoreline fishing. The tranquil view from Mount Vernon of the Maryland shore of the Potomac is being preserved as a pilot project that uses easements to protect parklands from obtrusive urban expansion. The project began in 1952 to preserve the river view as it was in George Washington's day. Piscataway Park stretches for six miles from Piscataway Creek to Marshall Hall on the Potomac River. This area, discussed in Finding Birds in the National Capital Area, is known to birders for its concentrations of wintering waterfowl and Bald Eagles, but the fields, marshes, and woods provide year-round birding opportunities. On Bryan Point Road, there is birding access at the Accokeek Creek parking lot. Here, a boardwalk crosses the marsh and provides birding access.

Obstacles: Existing interpretation is available for the historic sites only. Public access is somewhat limited.

Comments/Recommendations for this site: Make it better known to visiting naturalists. Provide interpretive materials for naturalists.

### Chapman's Landing/Mt. Aventine

Description: Chapman's Landing Road, 0.7 mile from its intersection with Maryland 210 North (Indian Head Hwy.). This immense piece of property is an Assisted Project of Program Open Space, administered by the Maryland Department of Natural Resources. At the end of a long, curving, tree-lined drive, a beautiful old house sits atop a bluff overlooking the Potomac. Below the house, a broad terrace stretches to the river, across which is Fairfax County, Virginia.

Obstacles: DNR turf wars confuse access to Chapman's Landing; plans for

the property are unsure. The entrance is gated but limited access seems to be available. 'No Trespassing' signs were observed in some areas of the property.

Comments/Recommendations for this site: Making this huge site available to the public would be an important element to any county-wide nature tourism plan. The location alone guarantees that any project would be, at the very least, attractively situated. Beyond that, the building would make an excellent regional center for the interpretation of local cultural history as well as natural history. Hiking trails could radiate out from the center, allowing access to the surrounding woodlands and the river below.



Ruth B. Swan Memorial Park, Bryans Road off Maryland 210

Description: The western area of the park borders historic Pomonkey Creek and the Potomac River. The park contains a library and ball fields. A one-mile foot trail passes through mature woodland as it approaches the shoreline of the Potomac River, and is one of the significant features of the park that would allow development as a nature viewing destination.

Obstacles: The illegal use of all-terrain vehicles is destructive to the forest area. The park is large enough so that no single project would necessarily dominate it.

Comments/Recommendations for this site: The trail should be developed into a nature trail, leading from the plateau down to the shoreline where Pomonkey Creek enters the Potomac River. Designing it for hiking, birding, and fishing would be economical since most of the nature trail could use the existing foot trail. This could also be designed to prevent illegal access by ATVs. Indeed, a commitment to wildlife viewing means a commitment to preserving the habitat and the creating of an atmosphere that will be as far removed from noise and modern disruptions as possible. Disruptions caused by ATVs will discourage nature tourists. The open area at the back of the park could be replanted with vegetation that would attract butterflies and birds. Indeed, this would be an excellent site for a community garden that doubled as an educational facility or scout project.

#### Chicamuxen WMA, Chicamuxen

Description: This 381-acre site situated along Chicamuxen Creek consists of prime marshlands as well as upland and rolling forested habitats, and provides the opportunity to view a wide variety of wildlife species. Waterfowl known to occur in the marshes include Black Duck, Gadwall, Mallard, Widgeon, Wood Duck, Bufflehead, Hooded Merganser, Ringneck, and occasionally Scaup and Canvasback. Adult and immature Bald Eagles are common, as are small nesting songbirds. Openings in upland areas feature wildflowers and native grasses, early succession fields, and annual wildlife plantings attract a myriad of species. There are numerous trails on the property, with excellent views of the water from both bluffs within the forest, and trails down to the water's edge.

Obstacles: Seasonal conflict with hunters.

Comments/Recommendations for this site: This site is large enough to attract serious hikers. Suggested upgrades include parking, signage, and trail



Chicamuxen WMA

work. The existing trail system could be developed specifically for hikers; a map of the trails could then be made available at a weatherproof stand in the parking area. To protect the trails, we would limit bicycle and off-road vehicles. The existing waterfowl blinds along Chicamuxen Creek could serve as photo blinds. Where crops have been planted to attract and nourish wildlife, interpretive signage could be added to explain this process.

### Chicamuxen Watchable Wildlife Center/Stump Neck, Indian Head

Description: Located on Stump Neck Road off Rt. 224, adjacent to the Naval Explosive Ordinance Disposal Tech Division. Thirty acres on a peninsula surrounded by the Potomac River, Chicamuxen and Mattawoman creeks flow through the area creating 20 acres of wetland that harbors rare and endangered species. There is a mile-long nature path with benches and small bridges.

Obstacles: None.

Comments/Recommendations for this site: Provide signage and interpretive materials.

## End of Mattawoman Creek Road, off 224

Description: Mattawoman Creek Road ends at a gravel pad adjacent to a long line of pilings that reaches from shore outward into Mattawoman Creek.

Several species of gulls, Double-crested Cormorants, Bald Eagles, and a variety of waterfowl may be observed here.

Obstacles: The site is not especially attractive, and has been significantly degraded by garbage and littering.

Comments/Recommendations for this site: If canoeing and/or kayaking become popular, this site might serve as an official launching area. Signs with a map of Mattawoman Creek and boat-accessible channels would make a valuable addition. As the pilings seem to attract various waterbirds, and probably fish as well, some interpretive signage might be appropriate. We would define and stabilize the parking area and increase garbage pickup and general maintenance.



General Smallwood State Park

# General Smallwood State Park, just north of Rison

Description: General Smallwood State Park is a 628-acre park located 4 miles west of Pisgah, off MD 224. The property includes the grave of General William Smallwood, as well as historic buildings that are open to the public. There is extensive water access for birding, boating, and fishing around the Sweden Point Marina where Bald Eagles, gulls, and waterfowl such as Bufflehead are frequently seen. Hiking trails pass through attractive forest and along freshwater marshes. Camping and cabins are available on site, as is a bathroom with wheelchair access. During our visit, the park was alive with wintering songbirds and butterflies were just beginning their spring flights.

Obstacles: The ranger stated that she saw only two or three birders per year in the park, but we expect the total to be somewhat higher. The park offers no faunal or floral lists, nor did there seem to be any movement in that direction. The park's biggest liability is lack of information about it.

Comments/Recommendations for this site: Like Cedarville State Park,
Smallwood would be an important site in any program designed to boost birding or nature tourism. We recommend enlarging the park office into a visitors' center, and diminishing the police checkpoint atmosphere. Attractive signage or displays discussing the park's plants and wildlife need to be added. The road and trail infrastructure is largely in place; we recommend increased interpretive materials combined with promotion of the site.

### Bumpy Oak Road/13 mile Naval Railroad Bed / Mattawoman Natural Environment Area

Description: Only a short drive from the traffic crush of Washington, D.C., this site is unquestionably one of the premier areas in the County for a nature tourism trail. Bald Eagles, Red-headed Woodpeckers, breeding warblers, and a variety of butterflies and dragonflies may be observed along the woodland edge.

Obstacles: Plans exist to operate a dinner train on the existing railroad tracks. This operation could be expanded to include historical and nature interpretation, such as the train that serves Fort Abraham Lincoln in Bismarck, North Dakota. We suggest working with the owner of the train to assist them in diversifying their service (and, in turn, increasing their opportunities for success).

Comments/Recommendations for this site: The tracks should be converted into a hike-and-bike trail that has pullouts for nature observation. Such a trail will continue to attract tourism dollars to the County from a variety of recreationists, and join a cadre of successful programs that have converted railways into recreational trails. Where the trail skirts wetlands, we would recommend the addition of boardwalks or platforms, allowing birders to get a few feet from passing cyclists. Should the line be retained for a dinner train operation, we suggest working with the owner of the train to diversify their operation to include nature and historical interpretation.



Myrtle Grove WMA

### Myrtle Grove WMA, Pomfret

Description: Located on Rt. 225, seven miles west of La Plata in the forested bottomlands of Mattawoman Creek. Activities offered at this 1.410-acre property include fishing, hiking, hunting, and target/trap shooting. The 23acre lake is home to trout, Largemouth bass, Bluegill, Pickerel and catfish, and attracts a variety of waterfowl including Hooded Merganser, Ring-necked Duck, and Green-winged Teal, as well as the ubiquitous Canada Goose, Barred Owl is common, and seven kinds of woodpeckers occur here; there are Woodcock, Wild Turkeys, and many species of songbirds and small mammals. Frogs and salamanders inhabit man-made ponds. Wintering Wood Ducks and other waterfowl flock to the flooded forest areas, called "greentree" reservoirs, where they feed on nuts and seeds dropped by the trees.

Myrtle Grove was one of the most promising sites we visited. The area seethes with wintering songbirds. The reservoir hosts many species of waterfowl, and a few northbound Tree
Swallows had already returned. Early
frogs were calling and the maples were
just budding out. The interesting array
of habitats demands bird, butterfly, and
wildflower checklists. This location
would be a favored site for any local
club's birding or photography trips,
especially given the large number of
other habitats within a short drive.

Obstacles: Myrtle Grove was designed for and is being promoted for consumptive forms of recreation. Nonetheless, during many parts of the year, shooting is nonexistent, or perhaps limited to the target range close to the front of the property. Trail maps for this site are old and incomplete, a situation that could be easily remedied.

Comments/Recommendations for this site: We recommend the addition of a large information kiosk or a small visitors' center. Trail improvement with signage and a trail map are key issues.

# Thomas Stone National Historic Site, Port Tobacco

Description: About 25 miles south of Washington, D.C., at 6655 Rose Hill Road. Thomas Stone was one of Maryland's four signers of the Declaration of Independence, and a delegate to the Continental Congress from 1775-78 and from 1783-84. This restored 322-acre site contains Thomas Stone's five-part tidewater plantation house, as well as several outbuildings typical of Eighteenth and Nineteenth Century Maryland. The property is owned and administered by the National Park Service. This site has

been open to the public since 1992 and is still being developed. Visitation is heaviest during the summer. Entrance is free. Available to the public are an Information Center, ranger-guided and self-guided tours, exhibits, audiovisual program, and special events. The site is handicapped accessible. Throughout the year, there are a variety of special interpretive events.

Obstacles: Because of the site's historic connection, it seems unlikely that the NPS would condone extensive modifications making the area more wildlife friendly. On the other hand, if the NPS is interested in increasing visitation to the site, the addition of some plantings might be appropriate.

Comments/Recommendations for this site: Planting historic crops on the site would add an interesting natural dimension for visitors and could be incorporated into an interpretive program.

#### Doncaster State Forest, Doncaster

Description: Dirt roads meander through this fairly large property. Hiking and hunting are the primary recreational activities, but lends itself to



Doncaster State Forest

other outdoor pursuits including birding, botany, and bicycling.

Obstacles: Shooting during certain parts of the year.

Comments/Recommendations for this site: Because roads and trails already exist, interpretive signage and a map to the forest's various habitats would immediately increase nature visitation of this site.

### Chapel Point State Park

Description: Purchased from the Catholic Church, the western portion of the park has ties to both Civil War and Native American history. The eastern portion borders the Port Tobacco River. Either entrance provides birding opportunities, as well as chances to observe and photograph wild flowers, butterflies, and other natural subjects. At the southern edge of the Park, on a bluff with a commanding view of the Port Tobacco River, is St. Ignatius Catholic Church. Built in 1662, it is the oldest continuously active parish in the U.S. The view from its historic cemetery warrants the short drive from La Plata. Open for hunters, also limited boat launch access.

Obstacles: The park has two entrances, neither marked as park property nor discussed in Maryland State Forests and Parks. Located not far south of La Plata on the eastern bank of the Port Tobacco River, Chapel Point State Park represents yet another cryptic DNR property. On the eastern wooded side, visitors are greeted by an unkempt parking lot with an open metal gate and a damaged hunters' sign-in board.

Trailheads originating at this site are gated and marked. Near this entrance, but on the other side of Chapel Point Road, Pisces Lane provides confusing boat access to the Port Tobacco River.

Comments/Recommendations for this site: The first addition to this site should be signage. Birders and other nature tourists should be provided with clear information. The park should also be listed with state park informational materials. The boat launch area could be a waterfowl-viewing site, and signage should be added for kayakers and canoeists.

### Mallows Bay, western border of Charles County on the Potomac River

Description: A one-mile long natural embayment, this is one of the nation's largest ship graveyards. Two hundred and thirty-six wooden ships were originally brought to be salvaged, but were later abandoned. Many protrude from the water and have become vegetated, creating unique islands and their own mini-ecosystems. This is one of the state's most engaging natural/historic areas. Opportunities to observe nesting and migrant shorebirds and waterfowl are very good here. Bald Eagles nest and feed in the immediate vicinity. This would be a good site for historic interpretation dealing with the origins of the various ships as well as their attempted salvage.

Obstacles: Public access is impeded by land ownership considerations, and the jurisdiction of the site is unsettled. The Potomac Coast Conservation Plan will unite over 5,000 acres of property,

including Mallows Bay, insuring the future protection of the site and making it an important link in any Charles County nature tourism plan.

Comments/Recommendations for this site: The umbrella of jurisdiction that will combine four large parcels of land should improve impeded public access. Additionally, it will be easier for the state or county to promote the newly combined areas, attracting visitors to an interrelated set of attractive, biologically and historically important sites. Unified directional and interpretive signage will enhance the sites' collective appeal. Kayaking or canoeing could facilitate historical interpretation. An interpretive center at the ship graveyard would be an appropriate addition.

# Friendship Farm Park/Friendship Landing

Description: Located on Friendship Landing Road, just off Rt. 425 in Nanjemoy, this is the linchpin site for developing nature tourism destinations in Charles County. For canoeists or small boaters, this creek offers miles of scenic marshes abounding with wildlife. The high banks are nesting sites for Bald Eagles. There is ample room for parking. Hiking trails link the riverbank, where there are fishing opportunities and a boat ramp, with uplands.

Obstacles: Disturbance to existing anthropological sites needs to be investigated.

Comments/Recommendations for this site: This county-owned property has significant potential for a multitude of

ecotourism and outdoor recreational opportunities. Friendship Farm, without question, should be made a priority in the county's nature tourism planning process. The property should serve as the hub for all of the county's natureoriented initiatives. Its panoramic view of Nanjemoy Creek makes it an ideal nature center site. Its protected waters, and miles of accessible tidal marsh allow for exceptional kayak and canoe activities. The park also lends itself to easy development of trails, observation areas and blinds, camping, and fishing areas. A house is present on the property and could be utilized for interpretation activities. The site would be attractive for a program stressing estuarine studies, but the surrounding woodlands would permit a broader program. We recommend some revegetating of the site to provide habitat and windbreaks. Ultimately, this site deserves a visitors' center with floor to ceiling picture windows, situated to overlook the river. This center could interpret the estuary below, fisheries issues, the area's Native American and post-European settlement history, and provide permanent telescopes through which to view the Bald Eagles nesting nearby. Charles County has made a significant investment in its future as a nature tourism destination by acquiring Friendship Farm Park. Early success with this project will set the stage for future acquisitions to expand Charles County's heritage tourism offerings.

Additionally, the Board of Education has expressed an interest in Friendship Farm as a site for pursuing environmental interpretation and historical studies. All of these programs dovetail



Purse State Park

with staff concepts of an active, working farm. Coupling nature tourism with the unique opportunity to view a working farm will combine the very best of two excellent attraction potentials. Considering Friendship Farm's water access, scenic views, fishing, crabbing, tidal marshlands, historical elements, farm buildings and outstanding wildlife habitat that includes nesting Bald Eagles, this site should be the focal point around which the nature tourism program is based.

### Purse State Park, Indian Head

Description: A 90-acre reserve that remains virtually unimproved, Purse is another property demonstrating that even during 2000: Year of Maryland State Parks, Maryland's parks are one of her best-kept secrets. The small parking lot, partly surrounded by lumber, lies in an attractive, wooded, hilly area. A trail leads through woodland to a low bluff. There, a brief descent leads

to the water's edge where fossil sharks' teeth are intermingled with beach pebbles. The site is excellent for birds, butterflies, dragonflies, and wildflowers. Nearby, there are active beaver lodges. Not far from other sites, and with little traffic, the area is an ideal site to incorporate into a bike trail.

Obstacles: Signage is lacking.

Comments/Recommendations for this site: Protection of surrounding areas by the Potomac Coast Conservation Plan will enhance the likelihood of tourists stopping at Purse during a visit to the area's multiple sites. We recommend parking enhancements with TEA-21 funds, trail enhancement and marking, stabilization of the descent to the river, and interpretive signage for birders, botanists, and fossil hunters.

### Swamp on Maryland 224, just north of Smith Point Road, West of Grayton

Description: This attractive swamp straddling Route 224 is one of the most attractive wetlands we encountered during our visits. A beaver lodge is close to the road; Bald Eagle and Belted Kingfisher were observed during our short site assessment. The area is especially attractive while flowering shrubs are blooming.

Obstacles: Lack of access.

Comments/Recommendations for this site: A pull off could be built with TEA-21 funds. The site has excellent potential for dragonflies, and some of the more interesting species found at the nearby but inaccessible Nanjemoy Creek Sanctuary could also be found here.

### Nanjemoy Creek Sanctuary, Riverside

Description: This is the only Nature Conservancy site in Charles County. The forest along Nanjemoy Creek, a tributary of the Potomac River, contains the largest colony of Great Blue Herons in the eastern United States. The Nature Conservancy's Nanjemoy Creek Great Blue Heron Sanctuary protects the nesting colony. About 1,300 pairs nest there each spring among beach, tulip poplar, and pine trees. Streams here contain the globally rare Dwarf Wedge Mussel, which depends on the Nanjemoy's clean, silt-free waters. Among other aquatic organisms thus far studied, at least 48 species of dragonflies and damselflies occur, including the primitive and locally uncommon Gray Petaltail, plus several clubtails and emeralds with restricted ranges. Rare plants include Virginia Heartleaf, Twisted Spikerush, and Delicate Sedge (Orr 1995). Because the herons' excrement kills the nest trees, the heronry is slowly shifting to the southern portion of the reserve. A number of habitats are represented from brackish tidal waters to shaded upland forests with small freshwater seeps. Both beaver ponds and natural oxbow lakes provide habitat for various birds, mammals and invertebrates.

Obstacles: Due to the site's sensitivity, Nanjemoy is closed to the public most days of the year.

Comments/Recommendations for this site: We would recommend public access to a site where the nesting

herons can be observed from a distance by telescope. Any birding festivals or special events should be done in partnership with the Nature Conservancy to include field trips when possible.

### Popes Creek

Description: Several restaurants at the Potomac's edge provide a combination of seabird and seafood opportunities. This site has a good view of the Gov. Harry W. Nice Memorial Bridge. This is an excellent area for bicycling, kayaking, and canoeing. Sea and bay birds flying northward along the Potomac's channel such as Northern Gannets, Tundra Swans, scaup, scoters, and Goldeneye may be viewed here with more amenities than are available at the parking site on Cobb Island.

Obstacles: None.

Comments/Recommendations for this site: There is an abandoned three milerailroad bed that runs between U.S. 301 and the Potomac River. The existing rail bed makes for easy and inexpensive trail development. This trail would run parallel to the wetlands of Popes Creek. Wildlife observation opportunities are considerable in this area due to its diverse bird and insect populations. The wildlife, in combination with the area's history—it was the escape route used by John Wilkes Booth, and has documented prehistoric sites—as well as the local seafood industry makes for a winning heritage tourism destination. Acquisition of the rail bed right-of-way should be undertaken. In the short term, signage for the region's fisheries resources, waterbirds, and the bridge should be put in place.

#### Sites Not Visited:

- Izaak Walton League CWMA: 141 acres, restricted access, permit required.
- Blossom Point CWMA: This site requires boat access. As kayak or canoe exploration of the area becomes more popular, this site may be further considered for visitation.
- North Brice Powerline Bog/South Brice Roadside Bog: We did not visit these sites because they are known for small populations of endangered plants. An effort to popularize them while there are so many other interesting and less fragile sites available is inappropriate.

## **CITATIONS**

Charles County Government, Charles County Parks, undated.

Charles County Historic Sites, The Presence of the Past, undated, Chesapeake Publishing Company.

Charles County Office of Tourism, Passport to History, undated.

Eubanks, T., R. Ditton, J. Stoll, The Economic Impact of Wildlife Watching on the Platte River in Nebraska, U.S. Environmental Protection Agency, Region VII, 1998.

Eubanks, T., P. Kerlinger, and R.H. Payne, High Island, Texas: case study in avitourism, Birding 25:415-420, 1993.

Eubanks, T., and, J. Stoll, Avitourism in Texas. A report to Texas Parks and Wildlife Department, 1999.

Eubanks, T., J.Stoll and P. Kerlinger, Wildlife Associated Recreation at Delaware Bay-The economic impact of tourism based on the Horseshoe Crab-Shorebird Migration in New Jersey, A report to the New Jersey Division of Fish and Wildlife, 2000.

Filion, F.L., J.P. Foley, A.J. Jacquemot, The economics of global ecotourism, Paper presented at the IVth World Congress on National Parks and Protected Areas. Caracas, Venezuela, 1992.

Herreld, H., International travelers are spending more in D.C., http://www.amcity.com/washington/stories/1996/08/26/newscolumn2.html; 1996.

Jett, G.M. (Compiler), Charles County Maryland Birds, Charles County Commissioners, La Plata, MD, undated.

Maryland Chapter of the Nature Conservancy, (Elsa Williams, ed.), Mountains to Marshes: The Nature Conservancy's Preserves in Maryland, Chevy Chase, MD, 1991.

Maryland Department of Economic Development (DBED), Annual Report, Fiscal Year 1998, http://www.dbed.state.md.us/who/report spub.htm; 1998.

Maryland Department of Natural Resources, Maryland State Forests and Parks, Annapolis, MD,2000.

Maryland Department of Natural Resources, Fisheries Services, A Fisherman's Guide to Maryland Piers and Boat Ramps, undated.

Maryland Office of Tourism Development, Destination Maryland, Baltimore, MD, 2000.

Maryland Office of Tourism Development, Maryland Outdoors, Baltimore, MD, 2000.

Office of the Governor, Speech by Governor Parris N. Glendening, Keeping Part of Maryland Forever Wild, the Maryland Wildland Protection System, http://www.gov.md.state.us

Orr, R., Great Blue Herons, Dwarf Wedge Mussels, and Gray Petaltails, ARGIA 7(3):19-21, 1995.

Orr, R., Odonata of Maryland and Washington, D.C., http://pages.prodigy.net/eckerd/maryland.htm, 1999.

Recreation Roundtable, Outdoor Recreation in the United States 1999, a Roper Starch Report for the Recreation Roundtable at http://www.funoutdoors.com/Rec99/ind ex.html; 1999.

Reingold, L., Identifying the elusive ecotourist, Tour and Travel News Supplement (Going Green) October 25: 36-37, 1993.

Roland, J. pers.com., E-mail from the Charles County Department of Tourism, including information from the Maryland Office of Tourism Development, 2000.

Scott, D., J. Thigpen, S. Kim, and C. Kim, The 1995 Rockport Hummer/Bird Celebration: a survey of visitors, Report to the Trull Foundation, Texas A&M University, College Station, Texas, 1996.

Southern Maryland Bicycle Map, designed by the University of Maryland and produced by the Southern Maryland Travel & Tourism Committee Baltimore County Cartographic Services, undated.

Southern Maryland Heritage Partnership, Southern Maryland Natural Heritage Plan, Chesapeake Bay Program, USEPA, Annapolis MD, 1997.

United States Fish and Wildlife Service, 1996 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation, Preliminary Findings, Washington, D.C., 1997.

TravelingAmerica.com, Presentation given March 7, 2000 at Heart of Appalachia Tourism Workshop, Information available from TravelingAmerica.com, 536 Pantops Center #400; Charlottesville, VA 22911; http://www.travelingamerica.com; travel@TravelingAmerica.com, 2000.

Walsh, R.G., Recreation economic decisions, Ft. Collins, CO: Dept. of Agriculture and Natural Resource Economics, Colorado State University, Chapter 12, 1984.

Wilds, C., Finding Birds in the National Capital Area. Revised ed. Smithsonian Inst. Press, Washington, D.C., 1992.

World Travel and Tourism Council (WTTC) 1999. Web pages: http://www.wttc.org/economic\_research/keystats.htm